	er ID 100092 18, 2013 8:36:36 AM	1		*10		Page 1						
Revision ID:	D4003-049 Tank Vent Line Assemb	oly	- 	Accept	*N900	040 <i>°</i>	100*	S	etup Star	1/1	S1* S2*	
Required Date:		Qty: 6.00 Qty: 6.00	*6* *6*	٠	Cust Item I Customer:	D:						
Reference: Approvals:	Process Plan:	MF	Date: 13-4-1	Tooling:	Da	nte:		R	Run Sta	171	R1*	
4	QC:	· - • •	Date:	SPC (Y/N):	Da	ite:		,	Sto	*N	R2*	
Sequence ID/ Work Center ID	Operat Descrip			Set Up/ Run Hours	Tool ID	Tool #	Plan Ac Code Q	cept	Neject Oty	Reject Number	Insp. Stamp	
Draw Nbr	Revision Nb	r								······································		
D4003	Α											
*110 *110* Small Fab		Memo		0.00				6	0		FF 13-04	- 22
Small Fab		1- Form tube as 2- Insert sleeve					·					
120	QC5- Ins	pect part completer	ess to step on W/O	0.00	S 7 €							
120 QC Quality Control		Memo		_{0.00} BY	3 5	•	<u> </u>		··			
130 *130*	Chemical	Conversion Coat p	er QS1005 4.1	0.00		·	·	<u> </u>	74	S13.4	V: 26	
HandFinish		Memo		0.00				···		7110	190	

0.00

Memo

Hand Finishing

NCR:	Yes	/	No	
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			İ						I.		DQA:	Date:	
NCR: Y	'es	/ No	<u> </u>			WORK ORDER NON-C	COI	VFORM	MANCE / UPDATE				
			Į.						1		QA Closed:	Date:	·
Vork Orde	ri:				•	DISPOSITION			AGAINS	ST DE	PARTMENT	/PROCESS	
Part N	_					Rework Scrap		r	Skid-tube Crosstub Machining Small Fa	ab 🗀	1	Water Jet d. Eng. Coor	Engineering Quality
NCR N	lo		1		·	Use-as-is Work Order Update			noforming Finishir Large Fab Composit		Rec/Stor	re/Packaging Supplier	Other
Root					Descri	iption of work order update		Initial	Action		Sign &		
Cause		Date	Step	Qty		or Non-conformance	Ch	nief Eng	Description		Date	Verification	QC Inspector
oc/Data quip/Tooling perator Material etup other rocess upplier raining napproved				t Re Qt	Де ^г								
				1		F	AUL	LT CATE	GORY	-	<u> </u>		•
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		Cracks Crushed/ Cuffs Heat Trea Inspectio Ripples in	at n Strip in	Tube		Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short Drill Holes Drawing		Instructi Mainte Mislabe Misread Offset	on Incomplete ions Incomplete/Unclear nance iled		Ovalized Over/Under Part Incorred Part Lost/Mi Part Moved Positioned V Power Loss/	ct ssing	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other
	<u> </u>	Turning S	equence			Finish		Out of S	Sequence			-	

Wave/Twist in Tube

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Thursday, April 18, 2013 8:36:36 AM

Item ID: D4003-049 Accept Setup Start **Revision 1D:** Item Name: Tank Vent Line Assembly Start Qty: 6.00 **Start Date:** 4/18/2013 **Cust Item ID:** Required Date: 4/26/2013 Reg'd Qty: 6.00 **Customer:** Reference: Run **Approvals: Process Plan: Tooling:** Date: Date: Stop Date: SPC (Y/N): Date: Sequence ID/ Operation-Set Up/ Tool ID Tool # Plan Reject Accept Reject Insp. **Work Center ID** Description **Run Hours** Code Qty Qty Number Stamp 140 QC7-Inspect Chemical Conversion Coat 0.00 *140* QC 0.00 Memo **Quality Control** 150 0.00 *150* Small Fab 0.00 Memo Small Fab Install nut as per dwg 160 QC5- Inspect part completeness to step on W/O 0.00 *160* QC 0.00 Memo **Quality Control**

					•				DQA:	Date:	
NCR: Ye	es / No				WORK ORDER NON-	CONFC	RMANCE / UF	DATE	QA Closed:	Date:	
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Work Order	••				DISPOSITION			AGAINST D	EPARTMENT	/PROCESS	
					Rework	1 	Skid-tube	Crosstube	7	Water Jet	Engineering
Part No	o				Scrap]	Machining	Small Fab		d. Eng. Coor.	Quality
					Use-as-is] Th	ermoforming	Finishing	Rec/Sto	re/Packaging	Other
NCR No	D	. (Work Order Update	J	Large Fab	Composite	_]	Supplier	
D 4		 	1	Deseri	ntion of work and an undata	Initia	N A	ction	Sign &	T	
Root Cause	Date	Step	Qty		ption of work order update or Non-conformance	Chief I		cription	Date	Verification	QC Inspector
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	Centre N	ot Conce	ntric to (D/S	BOM/Route		dware	<u>'</u>	Over/Under	 	Temperature/Cure
	Cracks	•			Broken/Damaged	— '	ection Incomplete	<u> </u>	Part Incorre		Weld
	Crushed/	'Crimped		ļ	Burrs	-	ructions Incomplete,	/Unclear	Part Lost/M	_	Wrong Stock Pulled
_	Cuffs				Contamination	—	intenance		Part Moved		
	Heat Trea				Countersink		labeled	<u> </u>	Positioned V		7 .
L	Inspectio		Tube	<u> </u>	Cut Too Short	\vdash	read	i L	Power Loss/	'Surge	Other
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Wave/Twist in Tube

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Work Ord Thursday, April					*100					Page			
Item ID: Revision ID: Item Name:	D4003-049 Tank Vent Li	ne Assembly			Accept	*N900	040	100)* s	etup	Start Stop	I VI	S1*
Start Date: Required Date: Reference:	4/18/2013 4/26/2013	Start Qty: 6.00 Req'd Qty: 6.00		*6* *6*	i e	Cust Item I Customer:	D:					I VI	17/
Approvals:	Process Pla	an:	Date:		Tooling:	Da	ate:		F	kun	Start	<i>"N</i>	R1*
	QC:	-	Date:		SPC (Y/N):	Da	ate:				Stop	*N	R2*
Sequence ID/ Work Center II	D	Operation Description Identify as per dwg & Stoc	k Location		Set Up/ Run Hours 0.00	Tool ID	Tool #	Plan Code	Accept Qty	Rejo Qty		Reject Number	Insp. Stamp
170 Packaging Packaging		Мето	5)24	13	0.00					{	14	3/4/3	<u> </u>

180

QC21- Final Inspection - Work Order Release

0.00

180

Quality Control

Memo

0.00

Page 3

		ì							1	DQA:	Date:	
NCR: Y	es / No	!			WORK ORDER NON-C	O	NFORM	MANCE / UPDA	ATE	QA Closed:	Date:	
· · · · ·					DISDOSITION				ACAINST DE			
Work Orde	er:	i i			DISPOSITION				AGAINST DE	PAKTIVIENT,	/PROCESS	
Part N					Rework Scrap Use-as-is Work Order Update		f Therm	Skid-tube Machining noforming Large Fab	Crosstube Small Fab Finishing Composite		Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root		1	1	Descri	ption of work order update	<u> </u>	Initial	Actio	n	Sign &		<u> </u>
Cause	Date	Step	Qty		or Non-conformance	Ch	nief Eng	Descrip	tion	Date	Verification	QC Inspector
Doc/Data												
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	Centre N	ot Conce	ntric to (D/S	BOM/Route	<u></u>	Hardwa	re	i	Over/Under	tolerance	Temperature/Cure
ļ	Cracks	ĺ			Broken/Damaged	_	4 '	on Incomplete		Part Incorred	 	Weld
	Crushed/	'Crimped			Burrs	Ŀ	4	ions Incomplete/Un	clear	Part Lost/Mi	ssing	Wrong Stock Pulled
ļ	Cuffs	<u></u>	Contamination	Maintenance				Part Moved				
ļ	Heat Treat Countersink					L	Mislabe		!	Positioned V		, ·
	Inspection	n Strip in	Tube	L	Cut Too Short	Misread			i	Power Loss/	Surge	Other
	Ripples i	n Bend			Drill Holes	1	Offset		1			

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Work Order ID:

100092

Parent Item:

D4003-049

Parent Item Name:

Tank Vent Line Assembly

Start Date: 4/18/2013

Required Date: 4/26/2013

Start Qty: 6.00

Required Qty: 6.00

Comments:

IPP rev A 10.01.05 new Issue Prelim EC verified by: DD IPP Rev B 10.05.13 ecn 10-562

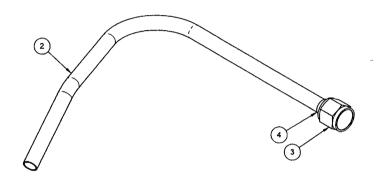
	EC verified by:DE) IPP	REV:C	13.04.17 N	OW MADE IN I	HOUSE DD \	ERF:JLM							
Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status	
AN818-8D Nut		Purchased	No				Each	11.0000	100 E	6	F	F	13~04	-2
		F :		Location ST349	2265	<u>Loc Qty</u> 11	<u>Lo</u>	c Code						
M6061T6T0.500W.035 6061-T6 RD Tube .500 x.	035W	Purchased	No	12		11	f	208.3500	Cort. Programme	<u></u>	F	FI	3 <u>-04</u> .	- 2 7
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MS20819-8D Sleeve		Purchased	No	40	92	38.35	Each	26.0000		6	FY	- 13	-04-	عح
		.* .*			9531 3900	Loc Oty 26 11 15	<u>Lo</u>	c Code		6				

NCR: Ye	es / No	 			WORK ORDER NON-C	CONFOR	RMANCE / UPD	DATE			
									QA Closed:	Date:	
Work Order	i.	; ;			DISPOSITION			AGAINST DE	EPARTMENT	/PROCESS	
Part No	0.				Rework Scrap Use-as-is Work Order Update	The	Skid-tube Machining moforming Large Fab	Crosstube Small Fab Finishing Composite	-1	Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
	·	-				,	80	i	_1		
Root				Descri	ption of work order update	Initial	Acti	ion	Sign &		
Cause	Date	Step	Qty	(or Non-conformance	Chief En	g Descri	iption	Date	Verification	QC Inspector
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Material		1						1			
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						AULT CAT	EGORY				- · · · · · · · · · · · · · · · · · · ·
Landin	-			<u></u>	General			<u> </u>	ا داد	<u></u>	70
-	Bending			, <u> </u>	Bend	Grain			Ovalized	<u> </u>	Pressure/Forced
-	Centre No	ot Conce	ntric to ()/S -	BOM/Route	Hardv		<u> </u>	Over/Under	 	Temperature/Cure
-	Cracks				Broken/Damaged	—	ction Incomplete		Part Incorred		Weld Wrong Stock Pulled
-	Crushed/	Crimped		-	Burrs	\blacksquare	ctions Incomplete/U	Inclear	Part Lost/Mi	issing	Invitoring Stock Pulled
-	Cuffs	.		<u> </u>	Contamination	Mislal	tenance	-	Positioned V	1/nama	
-	Heat Trea	1	Tuba	-	Countersink	\vdash		<u> </u>	Power Loss/	Other	
-	Inspectio Ripples in	1	rube	-	Cut Too Short Drill Holes	Misre		1	Trower ross/	ourge	Torrier
	Torque W		Evtrucion	, 	Drawing	Out of Calibration					
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Wave/Twist in Tube

			1	3 ,
ITEM NO.	QTY. -049	PART NUMBER	DESCRIPTION	JOHN CAMERON AVIATION PART NUMBER
1	х	D4003-049	TANK VENT LINE ASSEMBLY	JCA-M47-2-17
2	1	D4003-9	VENT LINE	
3	1	AN818-8D	NUT	
4	1	MS20819-8D	SLEEVE	



D4003-049 TANK VENT LINE ASSEMBLY

D

NOTES:
1) MATERIAL: N/A
2) FINISH: N/A
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: IDENTIFY WITH DART P/N "D4003-049" AND B/N USING FINE POINT PERMANENT INK MARKER
7) WEIGHT: 0.11 lbs

DESIGN DART AEROSPACE LTD DRAWN HAWKESBURY, ONTARIO, CANADA DRAWING NO. CHECKED MFG. APPR. TITLE APPROVED LINE DE APPR. DATE 10.02.05

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REV. A

SCALE

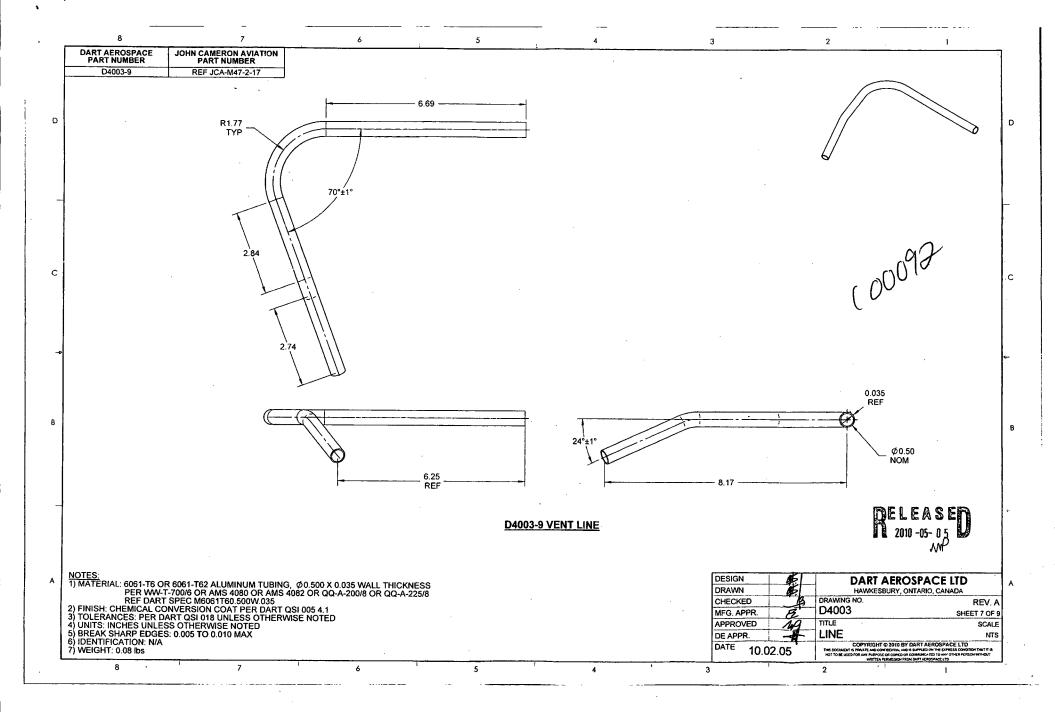
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SHEET 2 OF 9

		i									DQA:	Date:	2
NCR: Yes	/ No	1 1 1			WORK ORDER NON-C	ON	NFOR	MANCE / UP	PDATE		QA Closed:	Date:	-
Work Order:		1			DISPOSITION				AGAINS	T DEP	PARTMENT	PROCESS	
Part No.					Rework Scrap Use-as-is Work Order Update		Thern	Skid-tube Machining noforming Large Fab	Crosstub Small Fa Finishin Composit	b g		Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root					ption of work order update		nitial		ction		Sign &		
Cause	Date	Step	Qty	•	or Non-conformance	Ch	ief Eng	Desc	ription		Date	Verification	QC Inspector
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Setup		!								İ			

FAULT CATEGORY Landing Gear General Bend Grain Ovalized Pressure/Forced Bending BOM/Route Over/Under tolerance Temperature/Cure Centre Not Concentric to O/S Hardware Part Incorrect Broken/Damaged Weld Cracks Inspection Incomplete Wrong Stock Pulled Crushed/Crimped Instructions Incomplete/Unclear Part Lost/Missing Burrs Cuffs Part Moved Maintenance Contamination Heat Treat Mislabeled Positioned Wrong Countersink Power Loss/Surge Other Inspection Strip in Tube Cut Too Short Misread **Drill Holes** Ripples in Bend Offset Out of Calibration Torque Waves in Extrusion Drawing Out of Sequence Turning Sequence Finish Folio Wave/Twist in Tube Outside Dimensions

Other Process Supplier Training Unapproved



										I		DQA:	D	ate:	
NCR: Y	es /	No				WORK ORDER NON-	CON	IFORI	MANCE / UPI	DATE		QA Closed:	D	ate:	
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Part N	o					Rework Scrap Use-as-is Work Order Update		Thern	Skid-tube Machining noforming Large Fab	Crosstub Small Fa Finishir Composit	b g		Water Je d. Eng. Coor e/Packagin Supplie	.	Engineering Quality Other
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	Ce	nding ntre No acks	ot Conce	ntric to	o/s	Bend BOM/Route Broken/Damaged		Grain Hardwa Inspecti	re ion Incomplete	; (<u> </u>	Ovalized Over/Under Part Incorred			Pressure/Forced Temperature/Cure Weld
<i>).</i>	_		Crimped			Burrs		-	ions Incomplete/L	Inclear		Part Lost/Mi	ssing		Wrong Stock Pulled
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